CLAIMS

What is claimed is:

1. A platform adaptation method comprising:

executing a workload on a platform;

monitoring the platform for one or more performance events associated with the platform executing the workload;

determining which if any, of one or more pre-established sets of configuration parameter values should be selected for application to configure the platform, based at least in part on the one or more performance events observed during said monitoring; and

if one of the one or more pre-established sets of configuration parameter values is determined to be selected and applied to configure the platform, selecting and applying the pre-established set of configuration parameter values to configure the platform.

2. The method of claim 1, wherein said monitoring comprises monitoring at least a selected one of a processor performance counter, an OS performance counter, and a chipset performance counter, while the platform executes the workload.

3. The method of claim 1, wherein

the one or more pre-established sets of configuration parameter values comprises one or more sets of configuration parameter values pre-selected for the platform to execute one or more corresponding reference workloads; and

said determining comprises determining whether the workload resembles one of the one or more corresponding reference workloads, based at least in part on the one or more performance events observed during said monitoring.

4. The method of claim 3, wherein said determining of whether the workload resembles one of the one or more corresponding reference workloads comprises

determining one or more correlation metrics between the workload and the one or more reference workloads, based on the one or more performance events observed during said monitoring, and during one or more prior executions of the one or more reference workloads; and

determining whether at least one of the determined one or more correlation metrics exceeds a correlation threshold.

5. The method of claim 3, wherein said determining further comprises identifying for selection, the set of one or more configuration parameter values pre-selected for the platform to execute a reference workload, with which the workload is determined to resemble.

6. The method of claim 3, wherein the one or more reference workloads comprise at least a selected one of a route look-up workload, a OSPF workload, a JPEG codec workload, a 3DES encryption/decryption workload, an AES encryption/decryption workload, an IP packet forwarding workload, and a H.323 speech codec workload.

7. The method of claim 3, wherein the method further comprises pre-selecting said one or more sets of configuration parameter values for the platform to execute the one or more corresponding reference workloads.

8. The method of claim 1, wherein said determining comprises

generating an index based at least in part on the one or more performance events observed during said monitoring; and

selecting one of the one or more pre-established sets of configuration parameter values, based at least in part on the generated index.

9. The method of claim 8, wherein said generating comprises evaluating an index function in view of the one or more performance events observed during said monitoring.

10. The method of claim 1, wherein the one or more configuration parameter values comprise one or more of processor configuration parameter values, OS configuration parameter values, and chipset configuration parameter values.

11. In a system, a method of operation comprising:

determining whether a workload executed or being executed by a platform resembles a reference workload, based at least in part on one or more performance events observed from monitoring the platform's execution of the workload; and

if the workload is determined to resemble the reference workload, performing a selected one of

selecting a set of one or more configuration parameter values pre-selected for the platform to execute the resembled reference workload, and

providing information about the determined resembled reference workload to facilitate the selection of the set of one or more

configuration parameter values pre-selected for the platform to execute the determined resembled reference workload.

12. The method of claim 11, wherein the one or more reference workloads comprise at least a selected one of a route look-up workload, a OSPF workload, a JPEG codec workload, a 3DES encryption/decryption workload, an AES encryption/decryption workload, an IP packet forwarding workload, a H.323 speech codec workload.

13. The method of claim 11, wherein said determining comprises

determining a correlation metric between the workload and the reference workload, based on the one or more performance events observed during said monitoring, and observed during at least one prior execution of the reference workload; and

determining whether the correlation metric exceeds a correlation threshold.

14. The method of claim 11, wherein the method further comprises performing a selected one of

receiving the one or more performance events observed during said monitoring; and

said monitoring.

15. The method of claim 11, wherein

the system comprises the platform; and

the method further comprises executing the workload, and performing said monitoring.

16. The method of claim 11, wherein

said performing comprises selecting a set of one or more configuration parameter values pre-selected for the platform to execute the determined resembled reference workload; and

the method further comprises performing a selected one of

applying the selected set of one or more configuration parameter values to configure the platform, and

providing information about the selected set of one or more configuration parameter values to facilitate application of the selected set of one or more configuration parameter values to configure the platform.

17. In a system, a method of operation comprising:

generating an index based at least in part on one or more performance events observed in associated with a platform's execution of a workload; and

selecting one of one or more pre-established sets of configuration parameter values, based at least in part on the generated index, for application to configure the platform.

18. The method of claim 17, wherein said generating comprises evaluating an index function in view of the one or more performance events observed.

19. The method of claim 17, wherein the method further comprises performing a selected one of

receiving the one or more performance events observed; and

monitoring said execution of the workload by the platform.

20. The method of claim 17, wherein the method further comprises performing a selected one of

providing information about the selected set of one or more configuration parameter values to facilitate application of the selected set of one or more configuration parameter values to configure the platform; and

applying the selected set of one or more configuration parameter values to configure the platform, the platform being a part of the system.

21. An apparatus comprising

storage medium having stored therein programming instructions designed to enable the apparatus to

determine whether a workload executed or being executed by a platform sufficiently resembles a reference workload, based at least in part on one or more performance events observed from monitoring the platform's execution of the workload, and

if the workload is determined to sufficiently resemble the reference workload, perform at least a selected one of

selecting a set of one or more configuration parameter values pre-selected for the platform to execute the determined resembled reference workload, and

providing information about the determined resembled reference workload to facilitate the selection of the set of one or more configuration parameter values pre-selected for the platform to execute the determined resembled reference workload; and

at least one processor coupled to the storage medium to execute the programming instructions.

22. The apparatus of claim 21, wherein said programming instructions are designed to enable the apparatus to perform said determine by

determining a plurality of correlation metrics between the workload and the reference workload, based on the one or more performance events observed during said monitoring, observed during at least one prior execution of the reference workload; and

determining whether at least one of determined correlation metrics exceeds a correlation threshold.

23. The apparatus of claim 21, wherein the programming instructions are further designed to perform a selected one of

receiving the one or more performance events observed during said monitoring;

monitoring the execution of the workload to observe the one or more performance events;

providing information about the selected set of one or more configuration parameter values to facilitate application of the selected set of one or more configuration parameter values to configure the platform; and

applying the selected set of one or more configuration parameter values to configure the platform.

24. An apparatus comprising:

storage medium having stored therein programming instructions designed to enable the apparatus to

generate an index based at least in part on one or more performance events observed in associated with a platform's execution of a workload; and

select one of one or more pre-established sets of configuration parameter values, based at least in part on the generated index, for application to configure the platform; and

at least a processor coupled to storage medium to execute the programming instructions.

25. The apparatus of claim 24, wherein said generating comprises evaluating an index function in view of the one or more performance events observed.

26. The apparatus of claim 25, wherein the programming instructions are further designed to enable the apparatus to perform a selected one of

receiving the one or more performance events observed;

monitoring said execution of the workload by the platform;

providing information about the selected set of one or more configuration parameter values to facilitate application of the selected set of one or more configuration parameter values to configure the platform; and

applying the selected set of one or more configuration parameter values to configure the platform, the platform being a part of the system.

27. A system comprising:

a platform to execute a workload;

a monitor, either coupled to or an integral part of the platform, to observe one or more performance events associated with the platform's execution of the workload; and

an analyzer coupled to the monitor to receive the one or more performance events observed, and in response, at least contribute to selecting if possible, a set of one or more configuration parameters values for application to configure the platform, based at least in part on the one or more performance events observed.

28. The system of claim 27,wherein the analyzer is adapted to at least contribute by determining whether the workload resembles one of one or more reference workloads, based at least in part on the received one or more performance events observed, the resembled reference workload being employed to facilitate said selection of one of the one or more configuration parameter values.

29. The system of claim 27,wherein the analyzer is adapted to at least contribute by generating an index to facilitate said selection of one of the one or more configuration parameter values, based at least in part on the received one or more performance events observed.

30. The system of claim 27, wherein

the platform comprises a first networking interface; and

the system further comprises a computing device hosting the analyzer, the computing device including a second networking interface to couple the computing device with the platform via a network connection.

31. An article of manufacture comprising:

a machine readable medium; and

a plurality of programming instructions on the machine readable medium, designed to enable an apparatus to observe one or more performance events associated with a platform's execution of a workload or receive the one or more performance events observed, and to at least contribute in selection of one or more configuration parameters values for application to configure the platform, based at least in part on the one or more performance events observed.

32. The article of claim 31, wherein the programming instructions are designed to enable the apparatus to contribute by determining whether the workload resembles one of one or more reference workloads, based at least in part on the received one or more performance events observed, the resembled reference workload being employed to facilitate said selection of one of the one or more configuration parameter values

33. The article of claim 31, wherein the programming instructions are designed to enable the apparatus to contribute by generating an index to facilitate said selection of one of the one or more configuration parameter values, based at least in part on the received observed one or more performance events.